

App. No. 10/708,301  
Amendment dated August 19, 2005  
Reply to Office action of April 19, 2005

## **REMARKS**

### ***Summary of Amendments***

Claim 1 has been amended to recite the claim-5 limitation that the claimed susceptor is made "of a ceramic whose thermal conductivity is 100 W/mK or more," and accordingly claim 5 has been canceled.

### ***Rejections under 35 U.S.C. § 103***

Claims 1-14; Kholodenko et al. '755 or Kadomura et al. '273 in view of Hiramatsu et al. '006 or Ito et al. '116

Claims 1-14 stand rejected as being unpatentable over U.S. Pat. No. 6,310,755 to Kholodenko et al. or U.S. Pat. No. 5,968,273 to Kadomura et al., in view of U.S. Pat. No. 6,507,006 to Hiramatsu et al. or U.S. Pat. No. 6,717,116 to Ito et al.

The current Office action alleges that the thermal conductivity of the ceramic of which the susceptor recited in claim 1 of the present application is composed is anticipated by Kholodenko et al. or Kadomura et al.

Nevertheless, Applicants respectfully assert that Kholodenko et al. make no mention of the thermal conductivity of the ceramic material of the electrostatic member 100—which apparently is being read by the Office as an analogue of the ceramic susceptor 1 described in the present specification—of their electrostatic chuck 55. (The discussion of thermal conductivity in Kholodenko et al. is limited to that of the aluminum-infiltrated, silicon carbide base 175 of the electrostatic chuck 55, and to that of the metal bond layer 250, of the ceramic support 190, and of the refractory metal electrode 105.)

Applicants likewise assert that although Kadomura et al. mention that the aluminum nitride plate 6—which apparently is being read by the Office as an analogue of the ceramic susceptor 1 described in the present specification—that composes their electrostatic chuck 3 has a thermal conductivity of  $0.235 \text{ cal/cm} \times \text{sec} \times ^\circ\text{C}$  (= approx. 98 W/mK), no mention is made of a thermal conductivity of 100 W/mK or more.

In the embodiments set forth in the description section of the present specification, distinct from the teachings of either Kholodenko et al. or Kadomura et al., the effectiveness of ceramic susceptors utilizing a ceramic material whose thermal conductivity is 100 W/mK or more is brought out clearly.

App. No. 10/708,301  
Amendment dated August 19, 2005  
Reply to Office action of April 19, 2005

Claim 1 has been amended to recite "a ceramic susceptor of a ceramic whose thermal conductivity is 100 W/mK or more," which limitation distinguishes, as argued above, over the Kholodenko et al. and Kadomura et al. references.


Accordingly, in that Hiramatsu et al. or Ito et al. have been recited with respect to claim 1 only to reject the limitation therein that "said resistive heating element [is] patterned in a circuit having a pattern spacing of 0.1 mm or more," Applicants respectfully assert that at least for the foregoing reasons, claim 1 distinguishes over Kholodenko et al. or Kadomura et al. in view of Hiramatsu et al. or Ito et al., and that claims 2-4 and 6-14 should in turn be held allowable as depending from an allowable base claim.

A response to this Office Action was due by July 19, 2005, and consequently a Petition for Extension of Time, along with a credit-card payment authorization form, is attached hereto. Please consider this Amendment as timely filed.

Accordingly, Applicant courteously urges that this application is in condition for allowance. Reconsideration and withdrawal of the rejections is requested. Favorable action by the Examiner at an early date is solicited.

Respectfully submitted,

August 19, 2005

  
James W. Judge  
Registration No. 42,701

JUDGE PATENT FIRM  
Rivière Shukugawa 3<sup>rd</sup> Fl.  
3-1 Wakamatsu-cho  
Nishinomiya-shi, Hyogo 662-0035  
JAPAN

Telephone: 305-938-7119  
Voicemail/Fax: 703-997-4565